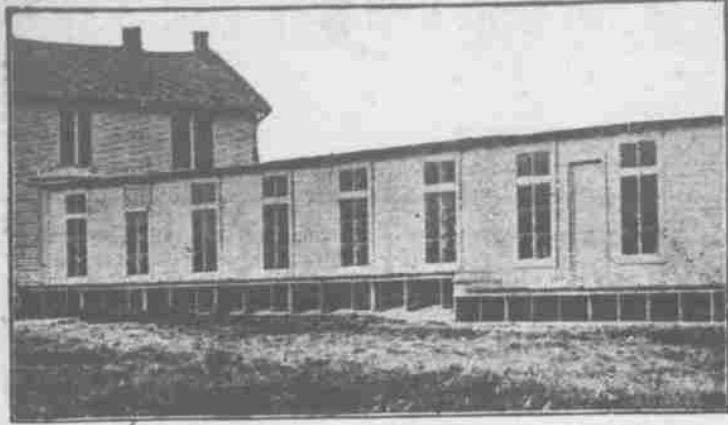


## IMPORTANCE OF FEEDING AND COMFORT



Brooding Laboratory Used at Kansas State Agricultural College.

The two most important factors in chick raising are comfort and proper food, according to N. L. Harris, superintendent of the Kansas agricultural college poultry farm.

"The little chick, whether naturally or artificially hatched, should not be given anything to eat until it shows signs of being decidedly hungry, which will usually be in about 36 to 48 hours," comments Superintendent Harris. "One of the first feeds that the young chick should receive is fine sand or commercial chick grit and a good drink of sour milk or buttermilk if possible. More digestive troubles in incubator chicks are caused by lack of grit than by any other one thing."

"One of the essentials in maintaining good digestion is a liberal supply of either sour milk or buttermilk. In a few hours after the sand and milk have been fed, a very small quantity of hard boiled egg, including the shell, chopped fine and mixed with bread crumbs or rolled oats, may be given. A good proportion is one part egg and five parts bread crumbs or rolled oats."

## Mash for Young Chicks.

"On the second day equal parts of cracked wheat and corn should be scattered in a litter. At the same time a mash consisting of 18 parts of corn meal, 21 parts of wheat bran, four parts of bone meal, and two parts of granulated charcoal should be given. The charcoal is not a feed but acts as a regulator. The mash should be fed in shallow troughs that are kept scrupulously clean. If chicks have a free range, this mash may be kept before them at all times. If, however, they are confined to small pens, only what they will clean up in about 20 minutes should be given them."

"During the first week or ten days it is best to feed five times a day, after which time three times daily is sufficient. As soon as possible whole

wheat and whole kafir should take the place of the cracked grains. Whole kafir is a splendid feed for young chicks.

"Where an abundant supply of sour milk is not available it will be found necessary to add half a pound of corn and meat scrap to the dry mash after the first week. This should gradually be increased to reach four pounds at the end of the fourth week."

## Fond of Onions.

"When the hatch is brought off early and there is not an abundance of green shoots, it will be found beneficial to feed an onion once or twice daily. Slice the onion crosswise so as to form rings. Onion is highly relished by young chicks and is especially desirable on cold, damp days. Later in the season, when it is possible to allow the young chicks to run out for green food, the question of exercise does not need to be considered."

"One of the most important features in raising young chicks is not to overfeed, and one of the best methods of feeding is to allow the young chicks all they care to eat until noon, at which time they should be allowed to become hungry, even to the point of crying a little. At night they should be given a liberal supply of feed so they will go under the cover with full crops."

## Comfort is Keynote.

"The keynote to success in raising young chicks is comfort. If the chicks are given sufficient to eat and plenty of exercise and are not allowed to become chilled they will thrive and return ample profit for the care given them. They must have a properly constructed house where the heat is sufficient to warm them quickly if they become chilled. All their quarters must be kept perfectly dry and clean. No chick can be comfortable if compelled to remain in damp or dirty places."

## CONTROL GAPS IN CHICKENS

Little Danger of Trouble if Youngsters Are Kept Off Ground and Out of Wet.

The gaps often cause heavy loss in a flock of young chickens. If care is taken to keep the chicks off the ground and to keep them out of the wet there need be little danger. Gaps are caused by small worms that fasten themselves to the inside wall of the windpipe. They thus obstruct the passage of the air and cause suffocation.

The gap is a parasite in the common earthworm. When chicks are permitted to run at large and especially when their runs are on wet ground or wet grass they pick up many earthworms. When the ground is very wet, as after a rain or even in the morning after a heavy dew, many of these worms come to the surface. The chicks pick them up and thus introduce the gapworms into their system.

Some ground that has long been used for chicken runs may become badly infested with gapworms. A change of location is advisable. Plow up the old range, grow a crop on it and in a year or two it will likely be free from parasites.—Ohio State University.

## UNLIMITED RANGE FOR HENS

Does Not Necessarily Mean That Fowls Should Be Given Freedom of Stables and Sheds.

Unlimited range has its advantages, but if unlimited range means that the fowls have the privileges of the stables, wagon sheds and roosting on the wheels and machinery, then the unlimited range is a nuisance. To give poultry plenty of room does not imply that the fowls should go where they please. A hen has no place in a stable any more than a cow has any right in a poultryhouse.

Little by little the droppings accumulate during the season until everything is too filthy to handle, and the work of cleaning will be more than the value of the fowls. Keep poultry away from other stock.

## GRIT SUPPLY FOR CHICKENS

Lime in Some Form Must Be Furnished Laying Hens to Encourage Production of Eggs.

Grit should be supplied to chickens at all times, as it aids digestion. Lime in some form must be supplied to the laying hen, to keep up her supply, which is so heavily drawn upon during egg production.

Grit can be purchased in commercial form, or coarse sand and small stones will do. Lime can be purchased in the form of oyster shells, though old plaster or dry cracked bones are fairly good.

## MARKETING THE DUCKS' EGGS

Most Buyers Make No Quotations Except Early in Spring—Pure White Egg Preferred.

The demand for ducks' eggs at a good price is limited and not nearly as general as the demand for hens' eggs. The quality of ducks' eggs on the average market was poor until people began to keep Indian Runner ducks and to build up a trade in first-class eggs. A good demand for ducks' eggs exists about Easter time at prices usually several cents a dozen higher than for hens' eggs, but during the rest of the year the average price for ducks' eggs has been about the same as for hens' eggs.

Most buyers make no quotations for ducks' eggs except early in the spring. Since three ducks' eggs weigh about the same as four hens' eggs, ducks do not appear to be as profitable for the production of market eggs as fowls.

A trade is being established gradually in some markets for fancy nearby ducks' eggs which bring higher prices than hens' eggs, and the demand seems to be increasing. Pure white eggs are preferred and usually bring the highest price. These eggs should be marketed frequently, as they depreciate in quality more rapidly than hens' eggs, especially in hot weather. The market for eggs should be investigated carefully by those who intend to raise breeds of the egg-laying type of ducks, such as the Indian Runner.

## WAY TO PREVENT EGG EATING

Provide Low, Covered Nests and Dark as Possible—Dose of Cayenne Pepper Is Good.

A good way of preventing egg-eating is to provide low, covered nests. It is also a good idea to have the nests as dark as possible. This can be done by stretching a curtain partly across one corner of the house and having all the nests in the darkened corner. Barely enough light should enter for the hens to see the nests. The nests should be covered and so low that the hen barely has room to creep on and off. When unable to stand upright in a nest, it is impossible for her to get at the eggs with her beak.

Another method that is often recommended is to give the egg-eater a good dose of cayenne pepper. This is done by making a small opening in the end of an egg and drawing off part of its contents. The egg is then filled with cayenne pepper, which mixes with the egg-substance left in the shell. When ready, the egg is placed in full view on the poultryhouse floor. The egg-eaters immediately pounce upon it, and the coughing and sneezing that results is evidence that the treatment is effective.

## NEATSPORTSDRESS

RECENT CREATION THAT HAS FOUND FAVOR.

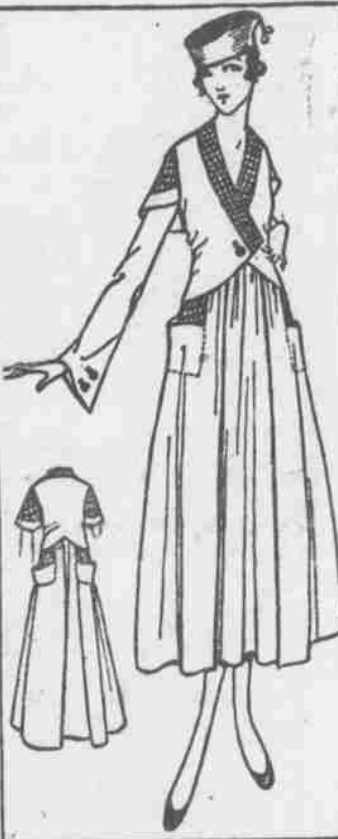
Resembled Semitailored Suit but is Suitable for All Kinds of Outdoor Pastimes—Can Be Made for Little Money.

The sports dress is almost a new-comer in fashiondom. For years sports suits, sports coats and sports skirts have been in the limelight; but only recently did the sports dress make its plea for favor. And it must be admitted the little stranger has received a very generous welcome.

Among the sports dresses recently placed on the market a number are made of silk or wool jersey cloth, an equal number, perhaps, of pongee and tussah, etc., usually plain one-tone and striped, checked or polka-dotted fabric being combined. The popular fancy is for a costume that closely resembles an ordinary sports suit, in that a Norfolk, Russian or middie blouse is developed with a simple gathered or plaited skirt. But once the sports dress was introduced and women discovered it was possible to have a garment that to all outward appearance was a modish semitailored suit but that it really was an all-in-one garment, wearing which they might indulge in golf or any other of their favored sports and come unrumpled from the game, the widest possible fabric range was to be expected.

The sports dress shown is a one-piece affair, inasmuch as the bodice lining, to which the skirt is attached, is joined at the armhole to the chic jacketette, the sleeve seams securing them.

The fabric employed for this little frock is navy blue serge. Six and a half yards is required, which, at \$1.25 a yard, amounts to about \$8.25. Three-



Sports Dress of Navy Blue Serge.

quarters of a yard of checked taffeta in green and blue trims the frock, and at \$1.50 a yard this would be about \$1. Estimating lining, thread, etc., at \$2, the dress, if built at home, would cost \$12.75.

The skirt is 4½ yards wide, finished, and the sleeves, cut bell shape at the wrist, give arm play and freedom required in a garment for sports wear. The generous pockets, emphasized by the hip-length inner panels of silk, should be regarded as more for show than use, if the frock's owner would avoid losing the original chic and close-reeced silhouette.—Washington Star.

## Best Drink for Morning.

A well-known woman seen the other day was looking years younger and better than previously. Her doctor had told her to drink the juice of one orange and one lemon mixed together, fasting, on waking every morning, advice which she had followed.

A quick mustard plaster may be made from a large slice of bread with edges trimmed, and thickly sprinkled with ground mustard. Over this spread a thin muslin cloth saturated with vinegar and wrung out. The vinegar prevents a blister.

An eminent French doctor has been lately upsetting our notions as to bed-making. He advocates that our pillows be put under the feet instead of under the head of the sleeper, and declares this method is a sure cure for insomnia. Another suggestion is to make up the bed with pillows for both the feet and head, so that the weary sleeper lies in a hollow. This is said to be most restful. Weariness is really the hunger of special organs and should be alleviated by rest in order to permit the feeding of these tired organs by the blood.

## Ideas for Sports Clothes.

Alice Maynard, who really introduced the sweater for women in America, and who has always the most interesting of sports clothes to offer, is showing several suits that are well worthy of description, whether they are fashioned of the wool jersey, the silk tricot, crepe de chine, or Italian

## FOR SUMMER GIRL



An ideal outfit for the summer girl.

Suit of white serge, coat having new cape effect and braided in broad stripes. This is the very latest in beach costumes; the coat is belted in back and is fastened in front by one large button. The coat has large lapels and the caped shoulders are an innovation for summer costumes. The skirt is loose and hangs in long lines.

Silk, depends on the individual taste and pocketbook. They are rather expensive, for at least three yards of the wide materials are necessary for the skirt alone, and as for the jacket—it is either long, with straight lines, or very short and jaunty.

The skirt of one suit was banded with two wide bands of the same material. The bands ran around the skirt below the hips and met in the center front in points. The jacket was the twenty-six-inch length, with raglan sleeves and two wide box plaits in the back, held in at the waist with a belt, which was loosely tied in the front. The whole jacket was lined with white Italian silk, the collar and cuffs formed of knitted silk developed in gold colored silk. It was lovely. The coat could be worn separately with a white skirt.

The second was a very jaunty little affair, of American Beauty colored silk with a short coat ending a bit below the waist in a full peplum—the sleeves of the jacket were three-quarters in length and of the peasant idea—wide towards the hand. The skirt was a charming model with a deep yoke at the back that tapered to nothing in the front. This skirt also had two wide bands as trimming.

## Skirts Conceal the Ankles.

Those who criticize the generous display of ankle which fashion has sanctioned of late, and called for longer skirts, find that in the new models their wishes have been met, though not, perhaps, quite in the way they desired or expected. Beneath the hem of some of the latest jupes are plainly visible, sometimes to the depth of three or four inches, a succession of tiny frills placed on an unponderable foundation of nines or some similar substance. Thus has fashion avenged itself on critics, and thus does the underskirt give tangible proof of its existence.

But this ethereal petticoat, which is, after all, only an apology for that once more essential garment, and is really a lining in disguise, is not alone sufficient to perform the whole duty of a jupon which, in the absence of hoop or whalebone, is to lend support to the skirt under which it is worn. For that the services of the new foundation petticoat are enlisted, a garment of which the breadth and stiffness might be embarrassing were it not for the restraint which characterizes its frills, and its flaring career ends somewhere about the knees.

## Stitches for Turned-Over Petals.

"When in doubt as to which direction the stitches should take in any turned-over leaf or petal," says Minnie Berry, in the New York Sunday American, "draw the leaf or petal unturned on a piece of paper, marking lines for the stitching as they would lie if worked. Cut out this petal with the scissors and turn over the edge as it is in the design. Hold the paper up to the light (close to a window pane), and the line will show through the turned-over part to indicate the direction which the stitches should take."

## Washable Corset Bag.

A nice washable corset bag can be made of white poplin. Embroider a wreath in cross-stitch in any desired color and finish with a four-inch hem which is stitched to form the casing for a ribbon.

## Smoothly Fitting Veil.

A veil, designed by a Boston woman, has a neckband forming the lower edge. This is fastened in the back with a clasp and prevents the veil from bunching.

## HANDICRAFT FOR BOYS AND GIRLS

By A. NEELY HALL and DOROTHY PERKINS

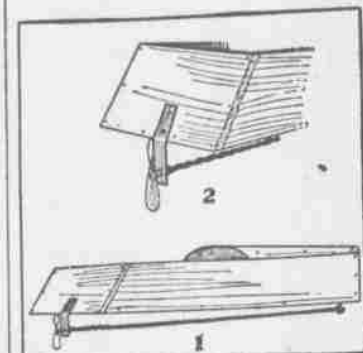
(Copyright, by A. Neely Hall)

## A TOY MOTOR BOAT.

The toy motor-boat shown in the illustrations is propelled by a tin propeller run by a rubber-band motor.

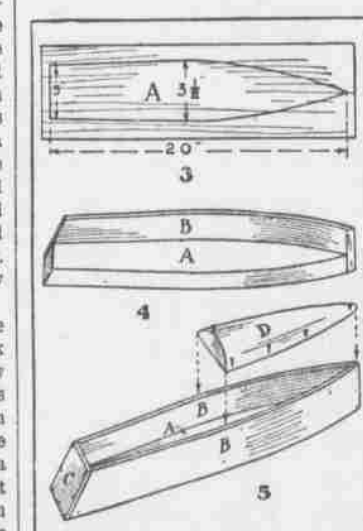
First cut out the hull from a piece of wood 1 inch thick, making it of the shape and dimensions shown in Fig. 3. Be careful to curve the side edges the same. The stern end should be sawed off on a bevel as shown in Fig. 4.

The sides of the boat (B, Figs. 4 and 5) are thin strips 2½ inches wide. Nail one to one edge of the hull, then



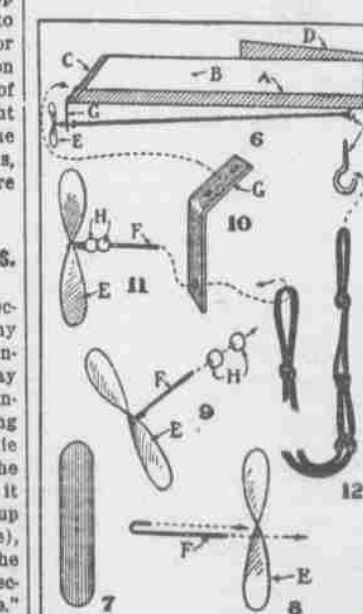
saw off the bow end on a line with the bow of the hull, and the stern end on the same slant as the bevel cut on the stern of the hull. With one side in place, nail on the second side and trim off its ends. The stern piece (C, Figs. 5 and 6) should be cut next to fit the slanted ends of the sides.

The propeller (E, Fig. 6) is cut from the side of a tin can. Cut a piece 3 inches long and ¼ inch wide, round its ends, and with the point of a nail pierce a hole through it each side of the center of the length of the piece (Fig. 7). To finish the propeller, it is only necessary to take hold of the two ends and twist the piece into the shape shown in Fig. 8. The propeller



is mounted upon a short wire shaft, one end of which is bent into a hook (F, Fig. 8). Stick the long end of this shaft through one hole in the propeller, and the hooked end through the other hole, then twist the hooked end over on to the main part of the shaft, as shown in Fig. 9.

The propeller is supported upon the bearing plate G (Figs. 6 and 10). Cut this out of a piece of tin 1½ inches wide by 3 inches long, bend it in half crosswise to give it stiffness, and then bend it lengthwise to the angle shown so it will fit over the slanted stern of the boat. Punch two holes through the upper end for nailing to the stern, and a hole at the lower end for the propeller shaft to run through. A couple of beads must be slipped over the shaft between the propeller and plate G, to act as a "brust bearing" (H, Figs. 9 and 11). Probably you can find a couple of glass beads in your mother's button bag.

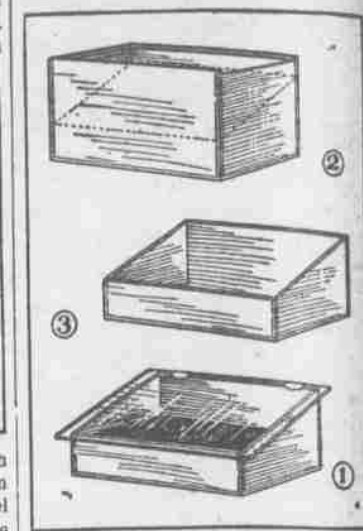


After slipping the beads on to the shaft, and sticking the shaft end through the hole in bearing plate G, bend the end of the shaft into a hook; then screw a small screw-hook into the bottom of the hull of the boat, at the bow end (I, Fig. 6), and you will be ready for the rubber-band motor. Rubber bands about 1½ inches in length are best for the purpose. Loop these together end to end (Fig. 12) to form a strand that will reach from hook I to the hook on the propeller shaft; then form three more strands of this same length, and slip the end loops of all four strands over the hooks.

## MINIATURE GREENHOUSE FOR STARTING SEEDS INDOORS.

Small boxes are better than large ones, because the earth makes the boxes heavy and the smaller they are the easier they are to handle. Starch boxes are of a good size.

Fig. 1 shows the simpler form of miniature greenhouse. Cut the tops of the starch box ends slanted so that the front edge is about 3¼



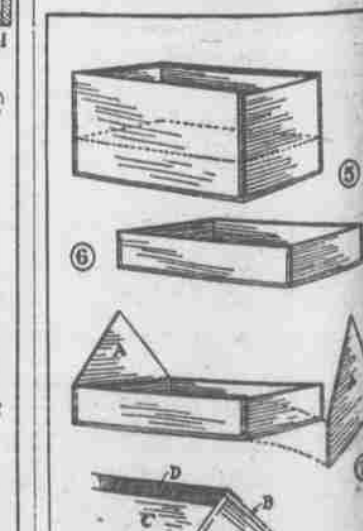
inches high and the rear edge 5 inches high, and cut down the front and back even with the edges of the ends, as indicated by dotted lines in Fig. 2. Many of you girls will find it no trick at all to cut down the starch box in this way, but if you think you cannot do it, ask father or brother to lend a hand. With the cutting done, get a piece of glass large enough to fit over the top and project a trifle over the front and ends. Possibly you can find an unused picture frame with a glass of the right size, or several camera plates that can be fastened together with passepartout paper to make a piece large enough to cover the box; if not, a painter will sell you a piece for a nickel.

The model shown in Fig. 4 looks more like a florist's nursery greenhouse. The starch box which forms



the foundation must be cut down as indicated by dotted lines in Fig. 5, so the remaining depth will be about two and one-half inches (Fig. 6). With the box thus prepared, cut two end pieces out of thick cardboard (A, Fig. 7), and tack these to the box ends. Make the peak of each 1 inch above the bottom edge. The box may be stood on end upon the cardboard for the purpose of marking out the lower portion of end pieces A. When the cardboard ends have been marked out, cut, and tacked to the box ends, procure two pieces of glass of the right size to project over the ends A and sides of the box, as shown in Fig. 4. Join these two pieces (B and C, Fig. 8) at the peak with a strip of tape lapped over them (D, Fig. 8).

Unless the boxes are lined with metal they are likely to leak after you water the planted seeds, so it is a good idea to place a cake tin or something of the sort beneath to catch the drippings, and to attach spool cord to keep the bottoms high and dry.



Give the outside of the boxes a couple of coats of white enamel.

Select the loamiest soil that you can find in last summer's garden for sowing your miniature greenhouses; also get some pebbles or broken stones. Scatter a layer of the stone over the box bottom, then spread the soil to a depth of 5 or 6 inches on top of the stone. Plant your seeds no closer than 2 inches apart, and no deeper than four diameters of the seeds. Water frequently to keep the soil continuously moist, and allow plenty of sunlight to enter through the glass roofs.